

Northern Railway

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Divisional Office

New Delhi

All Operating Officers

Station Director NDLS, DLI, HNKM & ANVT

ATM/GZB, AO/TKD

All Sectional TIs, SS & SMs of Delhi Division

Chief Controller, Section Controllers

Safety Control, All Train Manager Counselor/Delhi Division

Safety Circular - 04/2025

Subject: Train Operation in Case of Total Communication Failure on Single Line and Double Line Sections

Procedure During Total Failure of Communication on Single Line Sections

1. Initial Assessment of Communication Failure (Para 8005 of BWM)

In the event of a total interruption of communications between two block stations, Line Clear cannot be obtained through one of the following means, listed in order of preference:

1. Block Instruments, Track circuits, or Axle counters
2. Telephone attached to the Block Instruments
3. Station to station fixed telephones (wherever available)
4. Fixed telephones (railway auto-phones & BSNL/MTNL phones)
5. Control Telephone
6. VHF sets (under special instructions, not as the sole means where passenger trains run, except for specific sidings/sections with only freight trains operating under special DRM instructions)

When all the above means of communication fail, the instructions in the subsequent paragraphs shall be followed for working trains between the affected block stations.

2. Opening Communication by Dispatching a Vehicle (Para 8006 of BWM)

The Station Master who needs to dispatch a train through the affected block section must initiate communication by sending one of the following vehicles, in the order of preference, to the Station Master at the other end of the affected block section:

1. Light engine.
2. Train engine (after being detached from the train by the Loco Pilot on the Station Master's instructions).
3. Motor Trolley/Tower Wagon (duly accompanied by a TM or by a Station Master other than the Station Master on duty).
4. Trolley/Cycle Trolley/Moped Trolley (duly accompanied by a TM or by a Station Master other than the Station Master on duty).
5. Diesel car/Rail Motor Car/EMU Rake after ensuring all passengers have detrained.

3. Instructions and Authority for the Person Opening Communication

(A) Briefing and Acknowledgment (Para 8007 of BWM)

- Before dispatching any vehicle to open communication, the Station Master on duty must inform the designated staff (Loco Pilot/Motorman/TM/Station Master) about the situation and the purpose of their work.

- The Station Master must ensure that the staff being sent thoroughly understands the rules for working trains during a total communication failure on a single line.
- If the staff is not conversant with these rules, the Station Master must explain them.
- The Station Master must obtain the signature of the dispatched staff on the "Authority for opening communication during the total failure of communication," acknowledging the circumstances, purpose, and the relevant rules.

(B) Issuance of Authority T/B 602 (Para 8008 of BWM)

Before dispatching the vehicle, the Station Master on duty shall hand over the "Authority for opening of communication during total interruption of communication on single line section (T/B 602)" to the designated staff. This authority includes:

1. An "Authority to proceed Without Line Clear."
2. A Caution Order specifying the permissible speed within the affected block section.
3. An Authority to pass the last stop signal in the "ON" position.
4. A Line Clear Enquiry message (addressed to the Station Master at the other end) asking for Line Clear for the train waiting to be dispatched.
5. A Conditional Line Clear message (addressed to the Station Master at the other end) permitting the return of the dispatched vehicle in one of the following ways:
 - Returning light or attached to a train waiting at their station or attached to another engine.
 - Returning a Tower Wagon/Diesel Car/Rail Motor Car/EMU Rake running by itself.
 - Returning a Motor Trolley/Cycle Trolley/Moped Trolley independently or loaded in a train waiting to be dispatched from his station.
- The Line Clear Enquiry message (T/E 602) and the Conditional Line Clear Message (T/F 602) must be written out on their respective forms and given to the dispatched staff.
- The details of the returning engine/vehicle must be accurately filled in the prescribed forms.
- The dispatched staff must sign both the original and carbon copy of the T/B 602 form as confirmation of understanding its contents.

If a light engine or an engine with a brake van is dispatched to proceed to the next block station and continue its journey onward (not for opening communication), the Loco Pilot will only be given form No. T/B 602.

The Last Stop signal must not be taken "OFF" when authorizing a vehicle to proceed to the next station on the "Authority for opening communication during total interruption of communication on single line section."

4. Restrictions on Subsequent Movements (Para 8009 of BWM)

Once a vehicle is dispatched to open communication with the Line Clear Enquiry Message (T/E 602) and the Conditional Line Clear Message (T/F 602), no other train engine or self-propelled vehicle shall be allowed to leave the originating station in the same direction until the dispatched vehicle returns. This restriction does not apply to engineering officials using push trolleys on sections where push trolleys do not normally run on Line Clear.

5. Precautions During Movement on Authority T/B 602 (Para 8010 of BWM)

(A) Speed and Visibility

- The Loco Pilot operating a vehicle proceeding on "Authority for opening communication during total interruption of communication on single line section" must switch on flasher lights (where provided).
- Speed limits are as follows:
 - Not exceeding 15 kmph during the day and when visibility is clear.
 - Not exceeding 10 kmph during the night or when visibility is obstructed.
 - Walking pace only in thick fog, tempestuous weather, dust storms, or any situation with impaired visibility.
- Frequent use of the engine whistle or horn is mandatory.

- When proceeding at walking pace due to poor visibility, the vehicle must be preceded at an adequate distance by two men on foot: one displaying a red light and the other carrying fog signals for immediate use.
- Normally, one of these men will be from the Station Master's Group "D" staff, and the other from the engine crew or the personnel operating the trolley.
- In the case of a single-manned self-propelled vehicle, both men will be provided by the Station Master.
- The Station Master on Duty must explain their duties to both men in the presence of the dispatched staff and ensure they understand them.

(B) Tunnel Procedure

- Both during the day and night, a tunnel must not be entered until confirmed that it is clear.
- If there is any doubt, the vehicle must be piloted by a railway servant equipped with hand signals and detonators.
- Before entering a tunnel, the headlights, side lights, tail lights, and other provided lights must be switched on.

No obstruction of the line beyond the outermost facing points is permitted until the return of the dispatched vehicle.

6. Meeting of Vehicles in the Block Section (Para 8011 of BWM)

If a vehicle proceeding to open communication meets another vehicle sent from the opposite end, the respective staff of both the vehicles shall jointly decide which station the vehicles should proceed to. This decision will be based on factors such as the importance of the train awaiting Line Clear, distance to the nearest station, gradients, and the presence of catch sidings. If possible, the vehicles should be coupled. If coupling is not possible, they should run at a safe speed and adequate distance apart. In the case of a meeting between a Motor Trolley/Push Trolley/Cycle Trolley/Moped Trolley and a heavier vehicle (engine with brake van/Diesel Car/Rail Motor Car/EMU Rake), the lighter vehicle shall, if possible, be loaded onto the heavier one.

7. Arrival at the Destination Station (Para 8012 of BWM)

Upon sighting the destination station, the leading vehicle (or the coupled vehicles) must stop outside (in the rear of) the first Stop signal. If there's a following vehicle, it must stop at a safe distance behind the leading one. The Station Master must be informed of the stoppage outside the signal using the engine whistle/horn or by sending a person if necessary. The vehicles shall not enter the station until permitted by the Station Master, either by taking the relevant signals "OFF" or through other instructions.

8. Handing Over of Authority and Messages at the Destination Station (Para 8013 of BWM)

Once the dispatched vehicle(s) are admitted into the station, the "Authority for opening communication during total interruption of communication single line section" (T/B 602) along with the Line Clear Enquiry Message (T/E 602) and the Conditional Line Clear Message (T/F 602) must be handed over to the Station Master on Duty. The Station Master will keep these documents safely and record the messages in the Line Clear Books. Based on the Conditional Line Clear Message, the Station Master will issue a Conditional Line Clear Ticket to the returning staff to authorize their return to the originating block station.

9. Return of Vehicle Without Reaching the Next Station (Para 8014 of BWM)

If the dispatched vehicle returns to the originating station without reaching the intended destination station, the "Authority for opening communication during total interruption of communication on single line section" must be taken back by the Station Master of the originating station and cancelled. The original entries related to this dispatch must also be cancelled.

10. Dispatch of the Train from the Originating Station (Para 8015 of BWM)

Before dispatching the returning vehicle (light engine, engine attached to a train, or other vehicle), the Station Master on duty shall hand over the "Conditional Line Clear Reply Message" (T/F 602) to the returning staff for the line clear enquiry message giving line clear for the train waiting at other

station thereby authorizing the Station Master there to start the train upon the complete arrival of the returning vehicle.

11. Movement During the Return Journey (Para 8016 of BWM)

- An engine (light or attached to a train), Diesel Car, Rail Motor Car, or EMU Rake (or a train with a Motor Trolley/Cycle Trolley/Moped Trolley loaded on it) **may run at the booked speed**, observing speed limits in the Working Time Table and other relevant rules during the return journey.
- Motor Trolleys/Push Trolleys/Cycle Trolleys/Moped Trolleys returning independently may run at their normal speed, adhering to the rules governing their movement on Line Clear.

12. Arrival at the Originating Station After Return (Para 8017 of BWM)

Upon reaching the originating station, the returning vehicle must again stop outside (in the rear of) the first stop signal. Subsequently, it will be guided by the instructions of the Station Master, who may arrange its reception by taking the relevant signals "OFF" or otherwise.

13. Handing Over of Reply Message and Issuance of Conditional Line Clear Ticket (Para 8018 of BWM)

On arrival, the "Conditional Line Clear Reply Message" (T/F 602) must be handed over to the Station Master. The Station Master will record this in the Line Clear Message Book and, based on its authority, issue a Conditional Line Clear Ticket (T/G 602 for UP train & T/H 602 for DN train, as applicable) for the waiting train.

14. Procedure for Even Flow of Trains (Para 8019 of BWM)

If there is a continuous flow of trains in both directions, the Enquiry and Conditional Line Clear Messages for subsequent trains may be sent through the Train Manager of the preceding train.

15. Record Keeping (Para 8020 of BWM)

The arrival and departure times of all trains, engines, trolleys, etc., operating under these rules must be meticulously recorded in the Line Clear Enquiry and Reply Books, the counterfoil of the "Authority to proceed Without Line Clear," and the train signal register.

16. Dispatching Multiple Trains in the Same Direction (Para 8021 of BWM)

If the Station Master at one end has multiple trains to dispatch in the same direction before a train is normally expected from the opposite direction, the following procedure applies:

- The first available engine will be sent to obtain Line Clear not only for that train but also for the subsequent waiting or expected trains.
- The Line Clear Enquiry Message (T/E 602) must state that the latter trains will be dispatched at 30-minute intervals after the first train.
- Upon the Loco Pilot's return with Line Clear for the required number of trains, the Station Master will dispatch the first train based on this authority.
- The Station Master will endorse on the Line Clear Ticket that a specific train (with full details) will follow at a specified interval and provide similar information in writing to the Train Manager.
- Loco Pilots of the second and subsequent following trains will be given a Caution Order restricting their speed to 25 kmph on straight sections with clear visibility and 10 kmph when approaching or passing areas with restricted visibility (curves, obstructions, rain, fog, etc.).
- When dispatching subsequent trains, the details and departure time of the last preceding train, as well as the details of the following train, will be endorsed on the Line Clear Ticket. The Line Clear for the last train in the series will include the details and departure time of the immediately preceding train.
- During this whole procedure, Train Manager and Loco Pilots must be instructed to maintain a sharp lookout and be prepared to stop short of any obstruction.

17. Procedure When a Train Stops in the Block Section (Para 8022 of BWM)

When a train is stopped in the block section, the Train Manager must immediately exhibit a hand danger signal towards the rear and verify that the tail board or tail light is correctly displayed. If the stoppage is due to an accident, failure, obstruction, or other exceptional cause preventing the train from proceeding, the Loco Pilot will sound the prescribed code whistle to inform the Train Manager. The Train Manager will then protect the train by placing one detonator 250 meters behind the train and two detonators 10 meters apart at 500 meters behind the train (irrespective of gauge). If the detention exceeds or is likely to exceed 10 minutes, the train must also be protected accordingly towards the front. In the absence of the Train Manager, the Loco Pilot is responsible for protecting the train.

18. Procedure for Backing a Train (Para 8023 of BWM)

Backing a train is generally avoided. In exceptional circumstances where it is unavoidable, it must be done only after providing protection by placing one detonator at 250 meters and two detonators 10 meters apart at 500 meters from the point up to which the train is to be backed.

19. Duration of Working Under Total Communication Failure (Para 8024 of BWM)

Trains must continue to operate under this system until any of the communication means mentioned in Para 8005 are restored by the competent authority.

Procedure for Train Operation During Total Communication Failure on Double Line Sections

In the event of a **complete breakdown of communication** between two stations on a double-line section when "**Line Clear**" **cannot be established** through any of the following preferred methods (Para 7003 of BWM):

1. Block Instruments, Track circuits, or Axle counters
2. Telephone attached to the Block Instruments
3. Station to station fixed telephones (wherever available)
4. Fixed telephones (railway auto-phones & BSNL/MTNL phones)
5. Control Telephone
6. VHF sets (under special instructions, not as the sole means where passenger trains run, except for specific sidings/sections with only freight trains operating under special DRM instructions)

The following step-by-step procedure must be strictly adhered to for the safe passage of trains:

1. Mandatory Stop and Information (Para 7004 of BWM):

- Before a train enters the next block section, it must be brought to a complete stop.
- The Station Master on duty **will inform the Loco Pilot and the Train Manager about the total communication failure and the procedures being implemented.**

2. Authority to Proceed (Form T/C 602) (Para 7005 of BWM):

- The Station Master **will issue a specific written authorization (Form No. T/C 602) to the Loco Pilot of each train.** This authority will include:
 - (a) An Authority to proceed without "Line Clear".
 - (b) An authority to pass the last Stop signal even in "ON" position.
 - (c) A Caution Order mandating speed restrictions:
 - Maximum 25 km/h on straight sections.
 - Maximum 10 km/h when approaching or passing any area with obstructed visibility due to curves, obstructions, rain, fog, or any other reason.

3. Precautions in Areas with Limited Visibility (Para 7006 of BWM):

- When a Loco Pilot approaches or passes any section where the view ahead is unclear, a **railway** employee equipped with hand signals must be dispatched in advance to guide the train's movement.
- Loco Pilots must maintain a sharp lookout and use the engine whistle frequently.

4. Minimum Time Interval Between Trains (Para 7007 of BWM):

- **A minimum interval of 30 minutes must be maintained between** the departure of one train ("train about to leave") and the train that immediately preceded it.

5. Signal Operation (Para 7008 of BWM):

- Fixed signals, **except for the last Stop signal, may be taken "off"** for the reception and departure of trains.
- **The first Stop signal will only be taken "off" after the train has come to a complete stop outside it.**

6. Tunnel Entry Procedure (Para 7009 & 7013 of BWM):

- A tunnel **must only be entered after confirming that it is clear. Before entering, headlights, side lights, tail lights, and any other provided lights must be switched on.**
- If there is any doubt about the tunnel's clearance, the train **must be piloted by a railway employee equipped with hand signals and detonators.**

7. Train Manager's Responsibilities (Para 7010 & 7011 of BWM):

- The Train Manager must maintain a vigilant lookout towards the rear of the train and be prepared to display a hand danger signal to prevent any approaching train from the rear and to protect their train if necessary.
- If a train stops in the block section, the Train Manager must immediately display a hand danger signal towards the rear and verify the tailboard or tail-light. Upon receiving the prescribed whistle code from the Loco Pilot indicating a prolonged stoppage due to an issue, the Guard will protect the train by placing: **one detonator 250 meters behind the train, and two detonators, 10 meters apart, at 500 meters behind the train,** regardless of the track gauge.
- **Trains detained outside signals for more than 10 minutes** must also be protected accordingly. **In the absence of the Train Manager, the responsibility for protecting the train falls upon the Loco Pilot.**

8. Prohibition of Backing (Para 7012 of BWM):

- **Backing a train is strictly prohibited.**
- In exceptional circumstances where backing is unavoidable, **it can only be done after providing protection by placing: one detonator at 250 meters in the rear, and two detonators, 10 meters apart, at 500 meters in the rear** of the point up to which the train is to be backed.

9. Approach to the Next Station (Para 7014 of BWM):

- When approaching the next station, the **Loco Pilot must bring the train to a stop outside the first Stop signal and sound a continuous whistle.**
- **If no response is received within 10 minutes, the train must be protected as per paragraph 7011.**
- Following protection, the **Loco Pilot may send their Assistant Loco Pilot to inform the Station Master or Cabinman. If there is no Assistant Loco Pilot, the Train Manager will convey this information after protecting the train.**

10. Handing Over of Authority (Form T/C 602) (Para 7015 of BWM):

- The Loco Pilot of every train operating under this procedure must hand over the completed T/C 602 to the Station Master at the receiving end.
- The Station Master will keep these forms for inspection by the Sectional/Traffic Inspector, who will prepare a report for the Divisional Railway Manager within 7 days of communication restoration.

11. **Record Keeping** (Para 7016 of BWM):

- A detailed record of all trains that passed through the block section under the authority of T/C 602 must be maintained in the Train Signal Register at both stations.

12. **Continuation of the Procedure** (Para 7017 of BWM):

- This special operating procedure remains in effect until any of the communication methods in paragraph 7003 are restored by the competent authority.

13. **Restoration of Communication** (Para 7018 & 7019 of BWM):

- Upon restoration of communication, the Station Masters will exchange information regarding the complete arrival of all dispatched trains and engines before resuming normal working and exchanging "Line Clear". The Section Controller will also be informed once communication with them is restored.

 29/05/2015

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Copy to: 1. OSD to DRM for kind information of DRM

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